UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,430	02/06/2004	Yohei Makuta	0505-1266P	6116

2292 7590 07/11/2008
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER	
EGLOFF, PETER RICHARD	

ART UNIT	PAPER NUMBER
3714	

NOTIFICATION DATE	DELIVERY MODE
07/11/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/772,430	MAKUTA ET AL.	
	Examiner	Art Unit	
	PETER R. EGLOFF	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 April 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. In response to the amendment filed 7 April 2008, claims 1-19 are pending.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/07/2008 has been entered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 11 and 12 are rejected under 35 U.S.C. 112 for failing to particularly point out and distinctly claim the subject matter which applicant regards as his invention.

Regarding claims 11 and 12, the single means claim (i.e. click generating means), where a means recitation does not appear in combination with another recited element of means, is subject to undue breath rejection. In re Hyatt, 708 F.2d 712, 714-715,218 USPQ 195, 197 (Fed. Cir. 1983). It is noted that in the specification the click generating means is "a ball member, and a hole portion in which the ball member is engaged", and the scope of the claimed click generating means, the only means in the claim, covers every conceivable structure for achieving

the stated property (a simulated click), is held non-enabling for the specification discloses at most only those known to the inventor.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDowell (US Patent No. 6,083,106) in view of Yamasaki et al. (US Patent No. 5,547,382) and Young (US Patent No. 5,533,899).

Regarding claim 1, McDowell discloses a riding simulation system for providing an operator with a pseudo-experience of running conditions of a vehicle by displaying scenery seen to the rider as a video image on a display based on the operating condition of operation by the operator (see abstract), the riding simulation system comprising: a steering handle mechanism

(28) gripped and operated by the operator (Fig. 1; column 5, lines 50-67), a step mechanism comprising two pedals which are operated by the feet of the operator (see Fig's. 1 and 2; column 6, lines 28-39), a connection shaft for connecting said steering handle mechanism and said step mechanism to each other, said connection shaft provided to be extendable and contractible along the axial direction thereof (column 6, lines 7-22), and a frame body (see Fig. 2). McDowell does not explicitly disclose the riding simulation system is used to simulate riding a motorcycle, and that the foot controls are a gear change and a brake pedal, as in a real motorcycle, however Yamasaki discloses a motorcycle riding simulation system for motorcycles featuring two pedals operable as a brake and a gear changer (see Fig. 33; column 6, lines 1-29; column 16, lines 45-61). McDowell also does not explicitly disclose a frame body having a cylindrical portion and at least two main frames, and the steering handle mechanism is mounted at upper is mounted at upper portions of the cylindrical portion and the connection shaft is disposed midway between and is supported by lower portions of the at least two main frames. However, Young discloses a motorcycle simulator with a frame body having a cylindrical portion and two main frames (handlebar assembly 9), wherein the steering handle mechanism is mounted at upper is mounted at upper portions of the cylindrical portion and the connection shaft (see reference numeral 16) is disposed midway between and is supported by lower portions of the at least two main frames (see Fig. 6). It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of McDowell by adding the gear change and brake pedals taught by Yamasaki, with the motivation of using the device to simulate a motorcycle. It further would have been obvious to one skilled in the art at the time of the invention to modify the teachings of McDowell by specifying the frame body has a cylindrical portion and two main frames where

the connection shaft is disposed midway between the two main frames, as taught by Young, with the motivation of giving the assembly more structural integrity.

Regarding claim 2, McDowell further discloses the connection shaft is provided to be inclinable relative to the steering handle mechanism or the step mechanism (see Fig. 1; column 6, lines 1-6).

Regarding claim 3, McDowell does not explicitly disclose a vibrator for a dummy engine vibration, however Yamasaki discloses such a feature (column 16, lines 22-27). It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of McDowell by adding the vibrating mechanism taught by Yamasaki, with the motivation of simulation vibration occurred while riding an actual motorcycle.

Regarding claim 4, McDowell does not explicitly disclose means forgiving a reaction force in a direction opposite to a turning direction of said steering handle mechanism, however Yamasaki discloses such a feature (see Fig. 28; column 14, lines 55-65). It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of McDowell by adding the mechanism for providing a counter-steering force, with the motivation of simulating the feel of steering an actual motorcycle.

8. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamasaki et al. (US Patent No. 5,547,382) in view of Lyle (US Patent No. 4,293,231).

Regarding claim 5, Yamasaki discloses a riding simulation system for providing an operator with a pseudo-experience of a running condition of a motorcycle by generating a vibration based on the operating condition by the operator, said riding system comprising a

vibrator (175e) for a dummy engine vibration in a steering handle mechanism (see Fig. 36; column 17, lines 22-37). Yamasaki does not explicitly disclose a taper surface portion formed at an inner circumferential surface of a steering handle pipe constituting said steering handle mechanism, said taper surface portion gradually decreasing in diameter from the side of an end portion of said steering handle pipe, and a bracket having an engaging portion for engagement with said end portion of said steering handle pipe, having an outer circumferential surface gradually decreasing in diameter from the side of said engaging portion, and being inserted into said taper surface portion while holding said vibrator, wherein the bracket includes a pair of brackets, wherein each of the brackets includes a recess on an inner surface thereof, and when the brackets are mated together, the recesses of the mating brackets form a space in which the vibrator is disposed, wherein recesses have flat inner faces that oppose each other for engaging with left and right flat side of the vibrator. However, Lyle discloses a vibrator including a taper surface portion formed at an inner circumferential surface of a pipe (38), said taper surface portion gradually decreasing in diameter from one end to the other, a bracket (ribs 36) having an engaging portion for engagement with said end portion of the pipe, having an outer circumferential surface gradually decreasing in diameter from the side of said engaging portion, and being inserted into said taper surface portion while holding the vibrator, where the bracket includes a pair of brackets (ribs 36), and when the brackets are mated together, the recesses form a space in which the vibrator is disposed, and recesses have flat inner faces that oppose each other for engaging with left and right flat sides of the vibrator (column 3, line 57 – column 4, line 14; column 5, line 46 – column 6, line 5). It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of McDowell by using the vibrator mechanism

taught by Lyle including the flat recesses engaging the inner circumference of the pipe, and using this mechanism in the handlebars taught by McDowell, with the motivation of propagating the maximum possible vibrations between the vibrator and the handlebars.

Regarding claim 6, McDowell discloses a riding simulation system comprising a vibrator for a dummy engine vibration in a steering handle mechanism and providing an operator with a pseudo-experience of a running condition of a motorcycle by generating a vibration based on the operating condition by the operator, the vibrator including an eccentrically mounted weight (see Fig. 36; column 17, line 22-37). McDowell does not explicitly disclose a bracket having an enclosed hollow space, the bracket being screw-engage with an end portion of a steering handle pipe constituting said steering handle mechanism, wherein said vibrator is inserted into the inside of said steering handle pipe in the state of being held by said bracket, wherein the vibrator mechanism extends from an outer end of the vibrator so as to be disposed in the enclosed hollow space, and wherein the hollow space includes two flat inner faces that oppose each other for engaging with left and right flat side of the vibrator. However, as disclosed in the rejection of claim 5, above, Lyle discloses a vibrator mechanism engaged in a pipe, comprising a bracket engaged with a pipe, wherein the vibrator is inserted into the inside of the pipe being held by the bracket, wherein the vibrator includes a vibrating mechanism extending from an outer end of the vibrator so as to be disposed in the enclosed hollow space, and the hollow space includes flat faces engaging with left and right sides of the vibrator (column 3, line 57 – column 4, line 14; column 5, line 46 – column 6, line 5). It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of McDowell by using the vibrator mechanism taught by Lyle including the flat recesses engaging the inner circumference of the pipe, and using

this mechanism in the handlebars taught by McDowell, with the motivation of propagating the maximum possible vibrations between the vibrator and the handlebars. Lyle does not explicitly disclose the vibrator is screw engage with the pipe, as required, however as Official Notice was taken in the previous Office Action dated 6/25/2007 and not traversed, this feature is now admitted prior art, and therefore it would have been obvious to one skilled in the art at the time of the invention to secure the vibrator bracket of Lyle's system with a screw or screws, with the motivation of securing the bracket and vibrator in place.

Regarding claim 7, McDowell discloses a riding simulation system comprising a vibrator for a dummy engine vibration in a steering handle mechanism and providing an operator with a pseudo-experience of a running condition of a motorcycle by generating a vibration based on the operating condition by the operator. McDowell does not explicitly disclose the vibrator is inserted in a bracket and held in an inside of one end portion of a steering handle pipe constituting said steering handle mechanism, and a predetermined gap is formed between an outer circumferential portion of said one end portion of said steering handle pipe and a steering handle grip attached to said outer circumferential portion, wherein the bracket includes a pair of brackets, wherein each of the brackets includes a recess on an inner surface thereof, and when the brackets are mated together, the recesses of the mating brackets form a space in which the vibrator is disposed, and wherein the recesses have flat inner face opposing each other for engaging with left and right flat sides of the vibrator. However, as disclosed in the rejections of claims 5 and 6, above, Lyle discloses a pipe-mounted vibrator comprising these features (column 3, line 57 – column 4, line 14; column 5, line 46 – column 6, line 5). It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of McDowell by

using the vibrator mechanism taught by Lyle including the flat recesses engaging the inner circumference of the pipe, and using this mechanism in the handlebars taught by McDowell, with the motivation of propagating the maximum possible vibrations between the vibrator and the handlebars.

Regarding claim 8, Yamasaki further discloses the steering handle grip is a throttle grip 175m (see Fig. 36; column 17, lines 35-37).

9. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamasaki et al. (US Patent No. 5,547,382) in view of Lyle (US Patent No. 4,293,231), and further in view of Clarkson (US Patent No. 6,122,991).

Regarding claims 9 and 10, Yamasaki and Lyle do not explicitly disclose the steering handle pipe is comprised of a single pipe communication one end portion, on which the throttle grip is mounted, and the other end portion to each other, however Clarkson discloses a single pipe handlebar for vehicles (see Fig. 1). It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of Yamasaki by using the single pipe handlebars taught by Clarkson, with the motivation of using a simpler mechanism.

10. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamasaki et al. (US Patent No. 5,547,382) in view of Tagawa (US Patent No. 4,995,280).

Regarding claim 11, Yamasaki discloses a riding simulation system for providing an operator with a pseudo-experience of running conditions of a motorcycle by displaying scenery seen to the rider as a video image on a display based on an operating condition upon an operation

by the operator (see Fig 1; column 6, lines 30-52) and detecting a gear change by a sensor provided at a gear change pedal (see Fig 33; column 16, lines 45-61), and the gear change feeling in an actual two-wheeled vehicle is simulated (column 16, lines 58-61). Yamasaki does not explicitly disclose click generating means for generating a click feeling similar to a gear change in an actual motorcycle when a gear change is made by operating said gear change pedal, wherein the click generating means comprises a single ball member and triangular cover member having a single rectangular hole portion formed therein in which the single ball member is engage when said gear change pedal is in a center position. However, Tagawa discloses a click generating means for providing a clicking feeling when a gear change is accomplished (column 8, lines 13-23). Tagawa does not explicitly disclose a triangular cover member and a rectangular hole portion; instead Tagawa discloses a circular hole and circular cover member. However, applicant has not disclosed that the triangular cover and rectangular hole portion provide an advantage, or solve a stated problem. It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of Tagawa by adding a rectangular hole and triangular cover, and to use this modified system in the simulator taught by Yamasaki, with the motivation of providing a realistic clicking feeling when gears are changed.

Regarding claim 12, Tagawa discloses the single ball member is released from a single circular hole and then engaged again the hole. As stated above, Tagawa discloses the hole is a circular hole, not a rectangular hole, as required, however it would have been an obvious design choice to provide a rectangular hole, and it would have been obvious to add this mechanism to the simulator taught by Yamasaki, with the motivation of providing a realistic gear change feel.

11. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamasaki et al. (US Patent No. 5,547,382) in view of Young (US Patent No. 5,533,899) and Tosaki et al. (US Patent No. 5,989,123).

Regarding claim 13, Yamasaki discloses a riding simulation system for providing an operator with a pseudo-experience of running conditions of a motorcycle by displaying scenery seen to the rider as a video image on a display based on an operating condition of a dummy operating mechanism operated by the operator (see Fig. 1; column 6, lines 30-52), the riding simulation system comprising a handle mechanism for operating a steering handle with a handle shaft portion as a turning fulcrum by the operator (see Fig. 36) and a frame portion for supporting the steering handle shaft portion (see Fig's. 25-27; column 13, line 66 - column 14, line 9). Yamasaki further discloses a handle moving motor 121a that provides a reaction force direction opposite turning in order to simulate the actual feel of steering (see Fig. 28; column 14, lines 55-65). Yamasaki does not explicitly disclose the frame portion includes a cylindrical portion into which the handle shaft portion is inserted, and first to third main frames connected at equal angular intervals from left, right, and front sides of the cylindrical portion, the first to third main frames for supporting said steering handle shaft portion, however Young discloses such a steering handle and frame mechanism (see Fig. 6: reference numerals 9 and 16). The upper end portion of object 16 features a cylindrical portion where the handle shaft portion is inserted, object 9 includes first to third main frames at equal angular intervals. It would have been obvious to one skilled in the art to modify the teachings of Yamasaki by using the handlebar and frame structure taught by Young, with the motivation of providing more structural integrity to the assembly. McDowell and Young do not explicitly disclose the claimed single spring reaction

force mechanism, however Tosaki discloses a steering wheel control apparatus for a television game machine. The steering wheel control apparatus features a centering mechanism which provides a reaction force in the direction opposite the turning direction (column 19, lines 39-45). The centering mechanism is a single torsion spring 52 (see Fig's. 16 and 17; column 19, lines 56-65), wherein the single spring is provided with a pair of clamping portions 52a and 52b projected outwards from the steering handle shaft portion so as to clamp the fram portion/engagement cylinder 31 threbetween (see Fig's. 16 and 17; column 19, lines 56-65). It would have been obvious to one skilled in the art at the time of the invention to replace the handle moving motor of Yamasaki with the centering mechanism of Tosaki, with the motivation of reducing the cost of the parts. Tosaki does not explicitly disclose that the spring clamps the external surfaces of one of the main frames, however it would have been obvious to one skilled in the art at the time of the invention to place the spring clamps on external surfaces of one of the main frames instead since the invention of Tosaki requires a stationary pole for the torsion spring to provide reactive forces. Replacing the engagement cylinder with one of the main frames is a simple substitution of one known element for another to achieve predictable results.

Regarding claim 14, it is noted that Yamasaki, Young and Tosaki do not explicitly disclose elastic members interposed between the pair of clamping portions of the spring and the frame. Official Notice was taken in the Office Action dated 6/25/2007 that both the concept and advantages of placing damping material (elastic members) between points of contact was well known and expected in the art at the time of the invention. Since the applicant did not traverse the official noticed facts by specifically pointing out supposed errors, the official noticed facts taken in the rejection date 9/22/2007 are no considered admitted prior art. See MPEP 2144.03.

Therefore it would have been obvious to one skilled in the art at the time of the invention to place elastic members interposed between the pair of clamping portions of the spring and frame, with the motivation of reducing noise.

12. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over McDowell (US Patent No. 6,083,106) in view of Yamasaki et al. (US Patent No. 5,547,382) and Young (US Patent No. 5,533,899), and further in view of Tosaki et al. (US Patent No. 5,989,123).

Regarding claim 17, McDowell and Yamasaki do not explicitly disclose the claimed single spring reaction force mechanism. Tosaki discloses a steering wheel control apparatus for a television game machine. The steering wheel control apparatus features a centering mechanism which provides a reaction force in the direction opposite the turning direction (column 19, lines 39-45). The centering mechanism is a single torsion spring 52 (see Fig's. 16 and 17; column 19, lines 56-65), wherein the single spring is provided with a pair of clamping portions 52a and 52b projected outwards from the steering handle shaft portion so as to clamp the fram portion/engagement cylinder 31 therebetween (see Fig's. 16 and 17; column 19, lines 56-65). It would have been obvious to one skilled in the art at the time of the invention to replace the handle moving motor of Yamasaki with the centering mechanism of Tosaki, with the motivation of reducing the cost of the parts. Tosaki does not explicitly disclose that the spring clamps the external surfaces of one of the main frames, however it would have been obvious to one skilled in the art at the time of the invention to place the spring clamps on external surfaces of one of the main frames instead since the invention of Tosaki requires a stationary pole for the torsion spring

to provide reactive forces. Replacing the engagement cylinder with one of the main frames is a simple substitution of one known element for another to achieve predictable results.

13. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDowell (US Patent No. 6,083,106) in view of Yamasaki et al. (US Patent No. 5,547,382) and Young (US Patent No. 5,533,899), and further in view of Lyle (US Patent No. 4,293,231).

Regarding claim 15, McDowell, Yamasaki and Young do not explicitly disclose a taper surface portion formed at an inner circumferential surface of a steering handle pipe constituting said steering handle mechanism, said taper surface portion gradually decreasing in diameter from the side of an end portion of said steering handle pipe, and a bracket having an engaging portion for engagement with said end portion of said steering handle pipe, having an outer circumferential surface gradually decreasing in diameter from the side of said engaging portion, and being inserted into said taper surface portion while holding said vibrator, wherein the bracket includes a pair of brackets, wherein each of the brackets includes a recess on an inner surface thereof, and when the brackets are mated together, the recesses of the mating brackets form a space in which the vibrator is disposed, wherein recesses have flat inner faces that oppose each other for engaging with left and right flat side of the vibrator. However, Lyle discloses a vibrator including a taper surface portion formed at an inner circumferential surface of a pipe (38), said taper surface portion gradually decreasing in diameter from one end to the other, a bracket (ribs 36) having an engaging portion for engagement with said end portion of the pipe, having an outer circumferential surface gradually decreasing in diameter from the side of said engaging portion, and being inserted into said taper surface portion while holding the vibrator, where the

bracket includes a pair of brackets (ribs 36), and when the brackets are mated together, the recesses form a space in which the vibrator is disposed, and recesses have flat inner faces that oppose each other for engaging with left and right flat sides of the vibrator (column 3, line 57 – column 4, line 14; column 5, line 46 – column 6, line 5). It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of McDowell by using the vibrator mechanism taught by Lyle including the flat recesses engaging the inner circumference of the pipe, and using this mechanism in the handlebars taught by McDowell, with the motivation of propagating the maximum possible vibrations between the vibrator and the handlebars.

Regarding claim 16, McDowell further discloses the vibrator includes an eccentrically mounted weight (see Fig. 36; column 17, line 22-37). McDowell does not explicitly disclose a bracket having a hollow space, the bracket being screw-engaged with an portion of a steering handle pipe constituting said steering handle mechanism, wherein said vibrator is inserted into the inside of said steering handle pipe in the state of being held by said bracket, wherein the vibrator includes an eccentrically mounted weight extending from an outer end of the vibrator so as to be disposed in the hollow space. However, as disclosed in the rejection of claim 15, above, Lyle discloses a vibrator mechanism engaged in a pipe, comprising a bracket engaged with a pipe, wherein the vibrator is inserted into the inside of the pipe being held by the bracket, wherein the vibrator includes a vibrating mechanism extending from an outer end of the vibrator so as to be disposed in the enclosed hollow space, and the hollow space includes flat faces engaging with left and right sides of the vibrator (column 3, line 57 – column 4, line 14; column 5, line 46 – column 6, line 5). It would have been obvious to one skilled in the art at the time of

the invention to modify the teachings of McDowell by using the vibrator mechanism taught by Lyle including the flat recesses engaging the inner circumference of the pipe, and using this mechanism in the handlebars taught by McDowell, with the motivation of propagating the maximum possible vibrations between the vibrator and the handlebars. Lyle does not explicitly disclose the vibrator is screw engage with the pipe, as required, however as Official Notice was taken in the previous Office Action dated 6/25/2007 and not traversed, this feature is now admitted prior art, and therefore it would have been obvious to one skilled in the art at the time of the invention to secure the vibrator bracket of Lyle's system with a screw or screws, with the motivation of securing the bracket and vibrator in place.

14. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamasaki et al. (US Patent No. 5,547,382) in view of Lyle (US Patent No. 4,293,231), and further in view of McDowell (US Patent No. 6,083,106) and Young (US Patent No. 5,533,899).

Regarding claim 18, Yamasaki discloses a step mechanism comprising a brake pedal and a gear change pedal which are operated by the feet of the rider (see Fig. 33; column 6, lines 1-29; column 16, lines 45-61). Yamasaki does not explicitly disclose a connection shaft for connecting said steering handle mechanism and said step mechanism to each other, said connection shaft provided to be extendable and contractible along the axial direction thereof. However, McDowell discloses such a telescopic shaft (column 6, lines 7-22). It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of Yamasaki by using the telescopic connection shaft taught by McDowell, with the motivation of making the steering controls adjustable for people of different heights and reaches. Yamasaki does not explicitly

disclose a frame body having a cylinder portion and at least two main frames, wherein said steering handle mechanism is supported by the cylinder portion, and the connection shaft is disposed midway between and is supported by lower portions of the first to third main frames, however Young discloses such a mechanism (see Fig. 6: reference numerals 9 and 16). The upper end portion of object 16 features a cylindrical portion where the handle shaft portion is inserted, and object 9 includes first to third main frames at equal angular intervals. It would have been obvious to one skilled in the art to modify the teachings of Yamasaki by using the handlebar and frame structure taught by Young, with the motivation of providing more structural integrity to the assembly.

15. Claims 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamasaki et al. (US Patent No. 5,547,382) in view of Tagawa (US Patent No. 4,995,280), and further in view of McDowell (US Patent No. 6,083,106) and Young (US Patent No. 5,533,899).

Regarding claim 19, Yamasaki discloses a step mechanism comprising a brake pedal and a gear change pedal which are operated by the feet of the rider (see Fig. 33; column 6, lines 1-29; column 16, lines 45-61). Yamasaki does not explicitly disclose a connection shaft for connecting said steering handle mechanism and said step mechanism to each other, said connection shaft provided to be extendable and contractible along the axial direction thereof. However, McDowell discloses such a telescopic shaft (column 6, lines 7-22). It would have been obvious to one skilled in the art at the time of the invention to modify the teachings of Yamasaki by using the telescopic connection shaft taught by McDowell, with the motivation of making the steering controls adjustable for people of different heights and reaches. Yamasaki does not explicitly

disclose the connection shaft is disposed midway between and is supported by lower portions of two of the first to third main frames, however as stated in the rejection of claim 18 above, Young discloses such a handlebar and frame mechanism (see Fig. 6). It would have been obvious to one skilled in the art to modify the teachings of Yamasaki by using the handlebar and frame structure taught by Young, with the motivation of providing more structural integrity to the assembly.

Response to Arguments

16. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Egloff whose telephone number is (571) 270-3548. The examiner can normally be reached on M-F 7:30am - 5:00 pm EDT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached at (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kathleen Mosser/
Primary Examiner, Art Unit 3714

Peter Egloff
7/1/08